

Academic Performance of Student Subgroups

Introduction

Since 1995, California has been implementing a reform agenda that began with the adoption of standards and assessments, followed by the development of a statewide assessment system, and culminating in 1999 with a statewide accountability system based on the Academic Performance Index (API). For all schools that receive an API score, the State Board of Education has established a statewide target of 800 points on the index, which ranges from 200 to 1000. Targets for growth are set for these schools based on the difference between 800 and their previous year's index scores. (The target for schools at or above 800 is to remain at or above 800.) In addition, ethnic or socioeconomically disadvantaged subgroups of sufficient size have comparable improvement targets.

Subgroups play an important role in recent federal legislation. When he signed the *No Child Left Behind Act of 2001* (NCLB) earlier this year, President Bush declared that the mission of the nation's public schools is "to build the mind and character of every child, from every background, in every part of America." With this spoken commitment to improve the performance of the nation's public schools, the Elementary and Secondary Education Act (ESEA) was reauthorized, requiring educators to meet new standards of effectiveness. The law

established new reporting requirements, including new disaggregations of student performance. While further direction from the US Department of Education will clarify the new requirements, it is informative to examine the performance and growth of selected groups of students on the state's Academic Performance Index (API) through its first three years of operation.

The recent release of the 2001 Base API marked the first time that new component indicators have been added to the index, and therefore it is an opportune time to examine the results to date. Of particular interest in this report are the changes in scores, statewide, for different subpopulations of students. The NCLB legislation will require the analysis of performance by student ethnic and racial identity, English language proficiency, gender, disability status, migrant status, and status as economically disadvantaged. This paper will summarize how scores have changed within these groups as well.

The NCLB legislation will require the analysis of performance by a number of student subgroups.

Findings

We examined the changes in API scores across three years, 1999 to 2001. As can be seen in [Figure 1](#), school API scores have increased by 42 points statewide, from an average of 620 in 1999 to an average of 662 points in 2001. Most of the gain occurred from 1999 to 2000. Gains were largest for elementary schools (grades 2 through 6), with an increase of 58 points, from an average of 619 points to an average of 677 points. High school students did less well, improving from an average of 616 points to an average of 633 points, a gain of only 17 points. While we advise care in drawing strong conclusions from these data, it is clear that younger children have shown larger gains than older children over the 1999-2001 APIs.

Ethnicity

We also looked at the improvement of student subgroups over 1999-2001. For example, we compared scores for California's children by their ethnic group identification. All groups showed gains in their API scores, as can be seen in [Figure 2](#). This figure shows that Hispanic and African American students, while starting with lower scores than other ethnic groups, showed the largest gains. The gain scores for Hispanic students averaged 55 points, and for African American students, 49 points. While it is encouraging to see the largest gains coming from the groups that have the most room to improve, it is important to keep in mind that the scoring formulas for the API give greater reward for gains from lower scores. As a result, we explored the consistency of these results when measuring growth in other ways.

Another lens through which to analyze subgroup gains is the share of significant ethnic subgroups that made the API comparable improvement growth target in a given year. For each ethnic group, we counted the number of times it was a significant subgroup and the number of times each significant subgroup made its 2000 targets in 2001. [Figure 3](#) shows that 83% of significant Asian subgroups met target, a higher rate than the other groups. This is due in part to the large number of schools where that subgroup is over 800. Of particular concern in this figure are the lower rates of growth of the African American and American Indian subgroups.

English Proficiency Groups

We also examined the changes in API scores for children with varying English language proficiencies. This analysis reflects the performance of student subgroups at two points in time. It should be noted that *individual students* do not necessarily remain in the same group over time. [Figure 4](#) presents findings for students' API scores in 1999 and 2001, and shows that while all four of the language proficiency groups studied showed gains, the point gains were lower for those children who were classified as English Only or as Redesignated Fluent English Proficient (R-FEP). The gains for these two groups were 39 and 30 points each, respectively. On the other hand, for children classified as Limited English Proficient, the gain was 52 points, even though the most successful of these students leave the category through redesignation. For those classified Fluent English Proficient (FEP), the gain was 47 points.

Other NCLB Subgroups

In addition to student ethnic and racial identity and English proficiency, NCLB requires analysis of performance by gender, disability status, migrant status, and status as economically disadvantaged. Looking first at student gender, boys' scores showed a slightly higher gain than girls' scores did in the period studied, although the girls started with higher scores. The boys' API scores increased about 43 points, from 607 in 1999 to 650 points in 2001. The girls' API scores increased almost 40 points, from 634 points in 1999 to 674 points in 2001.

The amount of gain made by children from economically disadvantaged families was similar to those whose families were not economically disadvantaged. The former group of students' API scores increased by 54 points, from 503 to 557, while the scores for latter group increased by 57 points, from 704 to 761. Students in migrant education programs showed a mean gain of 42 points, from 437 to 479. Finally, students in special education programs showed an average gain of 46 points, from 415 to 461. The results of these other NCLB subgroups are summarized graphically in [Figure 5](#).

Thus, the findings suggest that there have been improvements demonstrated in performance by California's school children, and that these are not restricted to students in more advantaged groups, but are instead indicative of changes in a broad range of student types. It is especially encouraging that children of limited English proficiency, those who are economically disadvantaged, and those requiring special education are all showing improvements.

Other Perspectives of Change

Because the scoring formulas for the API give schools greater reward for gains from lower scores, we considered measures other than API point gain. Earlier, we examined the share of significant subgroups to make their comparable improvement targets. In addition, the percentile ranks obtained by students on the component measures of the API can be translated to normal curve equivalent (NCE) scores, with aggregating arithmetic performed thereon. This transformation provides another way to view the results.

The examination of NCE scores yields a similar pattern as the API results. [Figure 6](#) is typical of the results and shows that NCE scores reinforce the growth pattern observed in the API scores (see Figure 2). One notable exception is that using NCE scores as an outcome measure uncovers the high growth of Asian students from 1999 to 2001. On the NCE scale, Asian students grew as much as any of the other ethnic subgroups.

This look at subgroup scores gives valuable information about student performance in California. All major groups of students are sharing in California's recent growth. On the other hand, growth at the high school level is lagging behind middle school growth, and lagging far behind elementary school growth.

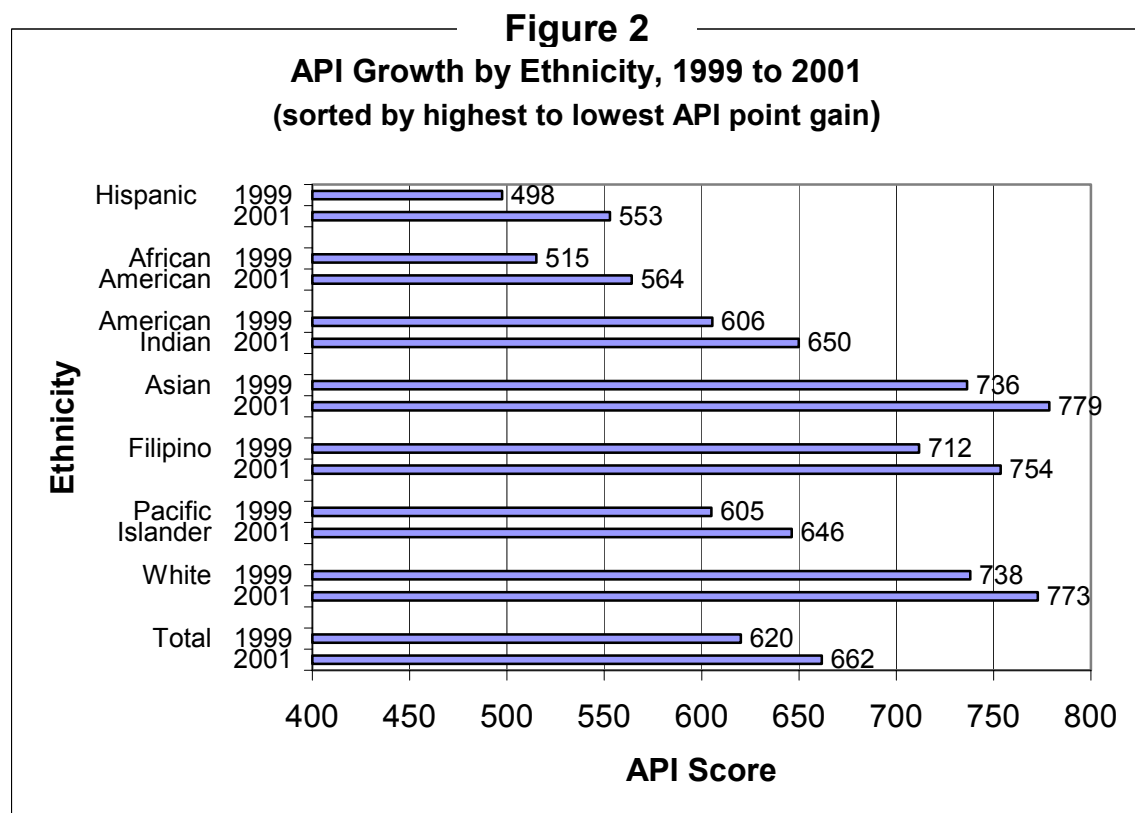
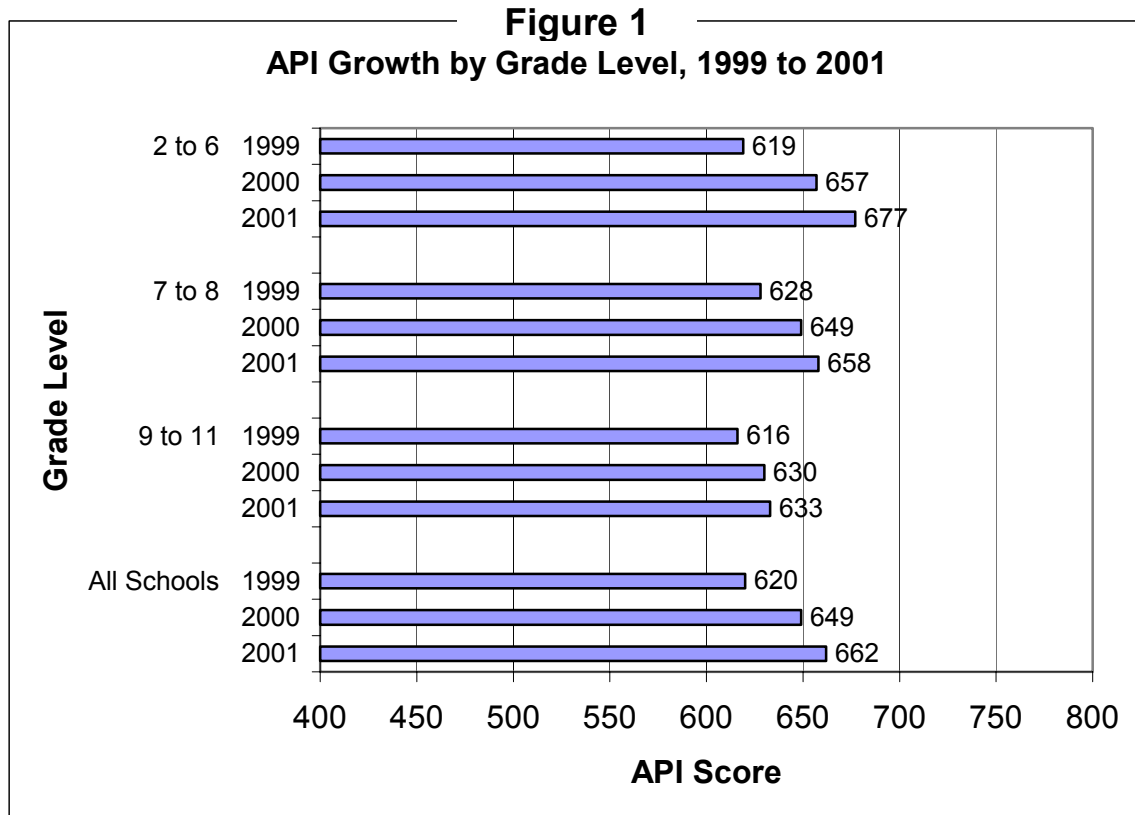


Figure 3
Percent Meeting API Growth Target by Ethnicity, 2000-2001

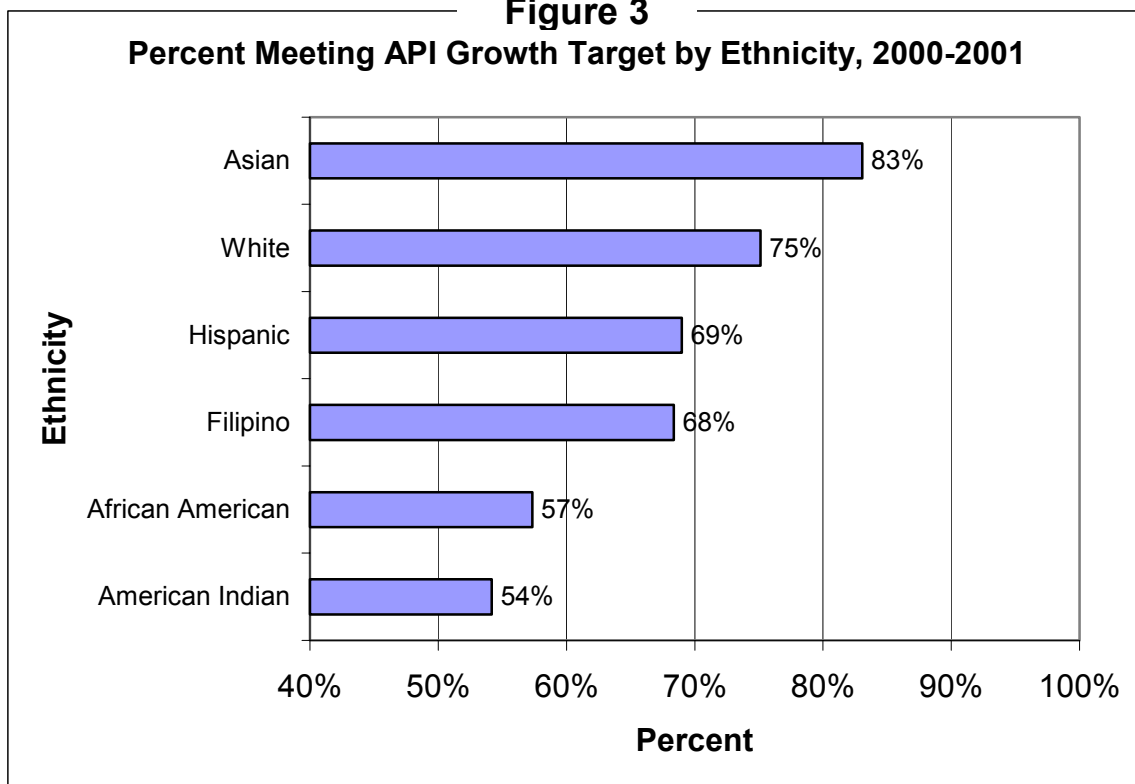


Figure 4
API Growth of English Proficiency Group, 1999-2001

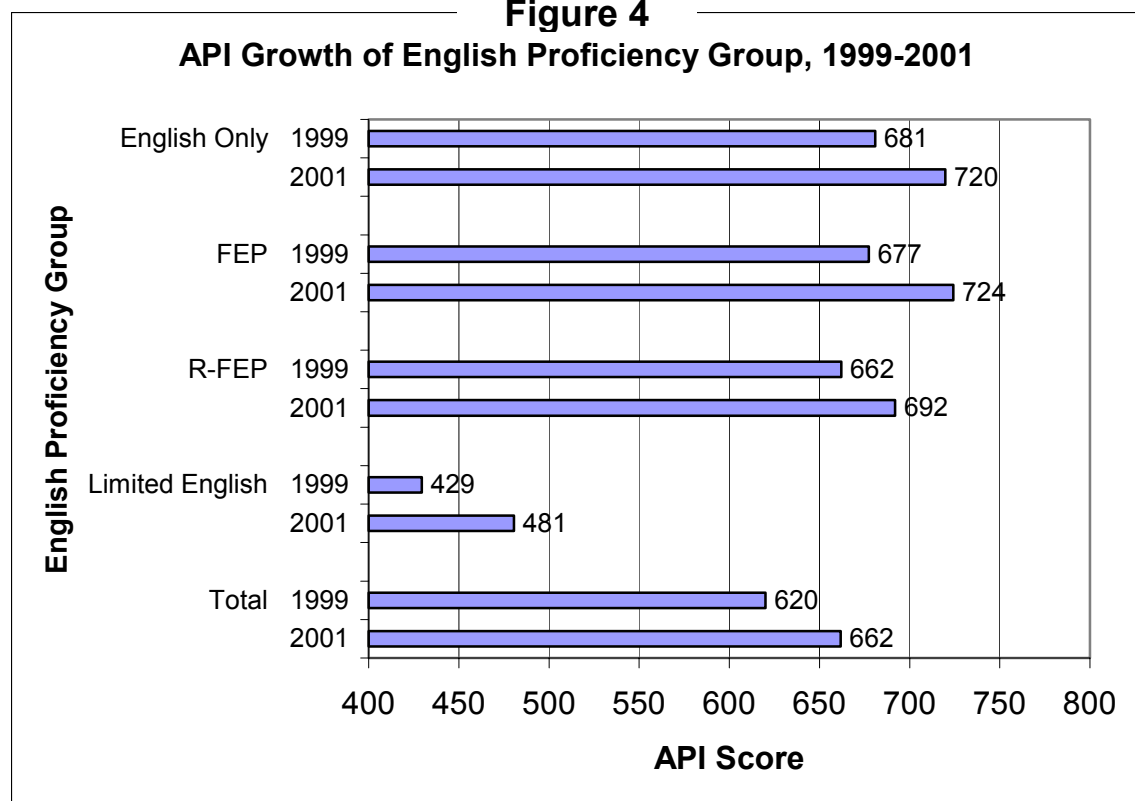


Figure 5
API Growth by Student Category, 1999-2001

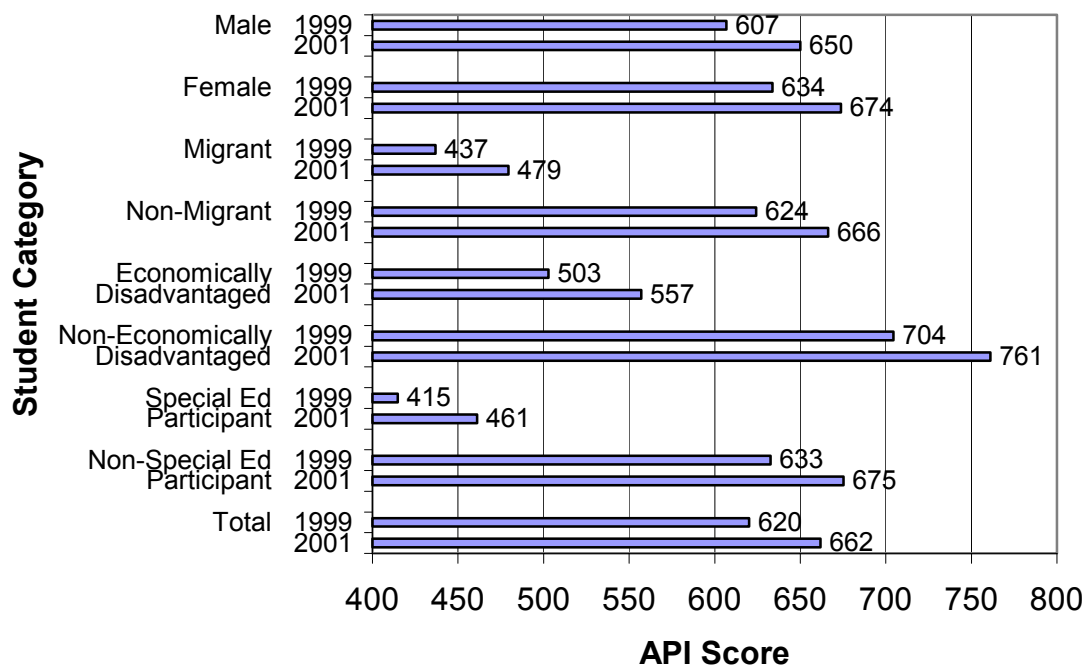


Figure 6
Normal Curve Equivalent Growth by Ethnicity, 1999 to 2001
(sorted by highest to lowest API point gain, as in Figure 2)

